

Product datasheet for **MG210993**

Mcm4 (NM_008565) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mcm4 (NM_008565) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mcm4
Synonyms:	19G; A1325074; AU045576; Cdc21; mcdc21; Mcmd4; mKIAA4003
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210993 representing NM_008565
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGTCGCCCGCATCCACCCCGAGCCGCCGAGCAGCCGACGCGGACGAGTCACCCCAACCCAGTCCC
 TTCGAAGTGAGGAAAGCAGGTCGTCACCCAATCGGAGACGTAGAGGCGAAGATTCTCCACCGGAGAGCT
 ACTGCCAATGCCACCTCACCAGGAGCCGACCTGCAGAGCCACCTGCACAGAATGCCTTGTTCACGC
 CCTCCTCAGATGCATTCTTAGCTATTCCTTTGGACTTTGATGTTAGTTCACCATTGACATATGGCACTC
 CCAGCTCGCGAGTGGAAGGAACCCCAAGAAGTGGGGTGAGAGGCACACCTGTAAGGCAGAGGCCAGATCT
 GGGCTCAGCACGAAAGGGTTTGCAGGTGGATCTGCAGTCTGATGGCGCAGCAGAGAAGACATCGTACCA
 AGTGAACAGTCTTAGGCCAAAAGCTTGTGATTTGGGGAACAGATGTGAATGTGGCAACATGTAAGAGA
 ATTTTCAGAGATTCCTTCAGTGTTCCTGATCCTCTGGCCAAAAGAAGAAAAATGTTGGCATAGATAT
 TACTCAACCTTTGTACATGCAACAACCTGGAGAGATTAATATTACAGGAGAGCCATTTTTAAATGTGAAC
 TCGGAACACATAAAATCATTTAGCAAAAATCTGTATAGACAGCTCATCTCCTACCCACAGGAGGTTATAC
 CAACCTTTGACATGGCTGTCAATGAGATCTTCTTTGACCGTTATCCTGACTCCATCTTAGAACATCAGAT
 TCAAGTCAGACCTTTTAAATGCGTTGAAGACAAAGAGTATGAGAAACTTGAATCCAGAAGACATTGATCAG
 CTCATCACCATCAGTGGCATGGTCATCAGAACATCACAGCTGATTCGGGAGATGCAGGAGGCCTTTTTC
 AATGCCAAGTCTCTGCCACACCACCCGGGTGGAGATAGATCGAGGCAGAATTGCTGAGCCCTGCAGTTG
 TGTGCACTGCCACACTACCCACAGCATGGCACTGATCCACAACCGATCATTCTTCTGACAAGCAAATG
 ATCAAACCTCAAGAGTCTCCTGAAGACATGCCTGCTGGCAGACACCTCACACTATTGTCCTTTTTGCC
 ACAATGACCTTGTGACAAGTTCAACCCAGGGACAGAGTGAACGTCACAGGCATATATCGAGACATC
 AATTCGAGTTAATCCAAGAGTGAGCAACGTGAAGTCTGTCTATAAAACCCACATTGATGTCATTCATTAT
 CGGAAAACGGATGCAAAAACGCTCTGCATGGCCTTGATGAAGAAGCAGAACGAAAACTTTTTCAGAGAAAC
 GTGTGAAATTGCTTAAGGAACCTTCAGGAAGCCAGATATTTATGAGCGCTTGCTTCAGCCTTGCTCC
 CAGCATTTATGAACATGAAGATATCAAAAAGGGAATCTTACTTCAGCTCTTTGGTGAACAAGGAAGGAT
 TTCAGTCACACTGGGAGGGTAAATTCGTGCTGAGATCAACATCCTTCTGTGTGGGGACCTGGCACCA
 GCAAGTCCAGCTGCTACAGTATGTGTACAACCTGGTCCCAGAGGCCAGTACACGTCGGAAAAGGCTC
 CAGTGGCTCGGCCTCACCGCTATGTGATGAAAGACCCTGAGACCAGGCAGCTTGTCTCCAGACAGGT
 GCCCTCGTCTGAGTGACAATGGGATATGCTGCATCGATGAGTTTGACAAAATGAATGAAAGCACAAGGT
 CTGTGCTGCATGAGGTGATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTGAGCTCAA
 TGCCGCGCACCTCTGCTCCTGGCAGCAGCAAAATCCTATTGAGTCTCAGTGGAAATCCTAAAAAACAACCATT
 GAAAATATCCAACACCCACACATTGTTGTCAAGGTTTGATCTCATTTCCTCATGCTAGACCCTCAGG
 ATGAGGCATATGACCGCGCTAGCTCATCACCTGGTTTCATTGTACTACCAAAGTGAGGAGCAAGTGGA
 GGAGGAGTTCTGGACATGGCCGTGCTGAAAGACTACATTGCATATGCCCATAGTACCATCATGCCCCGA
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 GGATGGTTCTGCTTACCCTCGACAGCTAGAGTCAATTAATTCGCTTAGCAGAAGCCCATGCTAAAGTAAG
 ATTTTCAAACAAAGTTGAAGCAATTGATGTGGAAGAGGCCAAAACGCTCCACCGGAGGCTCTGAAGCAG
 TCTGCAACTGACCCTCGTACTGGCATTGTGGATATTTCTATTCTTACTACAGGAATGAGTGCCACTTCTC
 GTAACCGGAAAAGAAGATTAGCTGAAGCATTGAGAAAACCTATTTTATCTAAGGGTAAAAACACGACCTT
 AAAGTACCAACAGCTGTTTGAGGATATTCGGGGACAGTCTGACACAGCAATTACCAAGGACATGTTTGAA
 GAAGCCCTGCGAGCTTTGGCTGATGATTTCTAACAGTACTGGGAAGACTGTCCGCTGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210993 representing NM_008565
 Red=Cloning site Green=Tags(s)

MSSPASTPSRRSSRRGRVTPTQSLRSEESRSPNRRRRGEDSSTGELLPMPTSPGADLQSPPAQNALFSS
 PPQMHS LAIPLDFDVSSPLTYGTPSSRVEGTPRSGV RGT PVRQRPDLGSARKGLQVDLQSDGAAAEDIVP
 SEQSLGQKLV I WGT DVNVATCKENFQRFLQCFTDPLAKEEENVGIDITQPLYMQQLGEINITGEPFLNVN
 CEHIKSF SKNL YRQLISYPQEV IPTFDMAVNEIFFDRYPDSILEHQIQVRPFNALKTKSMRNLNPEDIDQ
 LITISGMVIRTSQLIPEMQEAFFQCQVSAHTTRVEIDRGRIAEP CSCVHCHTTSMALIHNR SFFSDKQM
 IKLQESPEDMPAGQTPHTIVLFAHNDLV DKVQPGDRVNVGTGIYRAVPIRVNPRVSNVKS VYKTHIDVIHY
 RKTD AKRLHGLDEEAEQKLFSEKRVKLLKELSRKPD IYERLASALAPSIYEHEDIKKGILLQLFGGTRKD
 FSHTGRGKFR AEINILLCGDPGTSKSQLLQYVYNLVPRGQYTSKGSSAVGLTAYVMKDPETRQLVLQTG
 ALVLS DNGICCID EFDKMNESTRSVLHEVMEQQTL SIAKAGIICQLNARTSVLAAANPIESQWNP K KTTI
 ENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHLVSLYYQSEEQVEEFLDMAVLKDYIAYAHSTIMPR
 LSEEASQALIEAYVMRKIGSSRGMVSA YPRQLESLIRLAEAHAKVRF SNKVEAIDVEEAKRLHREALKQ
 SATDPRTGIVDISILTTGMSATSRKRKEELAEALRKLILSKGKTPALKYQQLFEDIRGQSDTAITKDMFE
 EALRALADDDFLTVTGKTVRLL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_008565

ORF Size: 2586 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_008565.2](#), [NP_032591.2](#)

RefSeq Size: 3360 bp

RefSeq ORF: 2589 bp

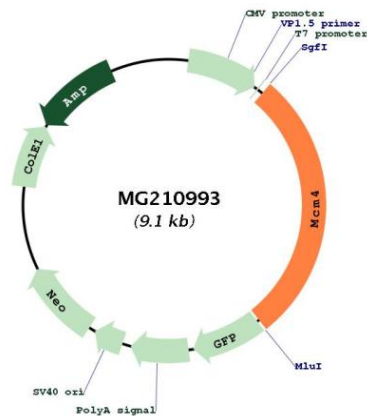
Locus ID: 17217

UniProt ID: [P49717](#)

Cytogenetics: 16 10.09 cM

Gene Summary: Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210993